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## MERCURY.

FROM SIGMOND'S LECTURES ON THE MATERIA MEDICA.

No substance with which man has been furnished by the bountiful hand of Nature, has undergone more strict scrutiny than mercury. It has been investigated with the greatest ardor, and with the fondest expectation of obtaining from it the most unbounded sources of riches and of health. The earlier alchemists tormented this metal in the most absurd and ridiculous manner; it was the unceasing object of their examinations. Not only, according to them, was gold, and, indeed, every metal, formed from this principle, but it entered into the composition of all beings; it was one of the elements of Nature, and even intimately connected with the soul of man. The grand object of the adepts was the fixation of mercury; this was the *summum magnum* of all their labors. Extravagant, however, as were their follies, and the theories in which they indulged, we owe our knowledge of some of the most important facts in arts and in the sciences to their unwearied and indefatigable exertions. This beautiful and singularly endowed metal is now familiar to us in all its properties. The chemical physicians at an early period availed themselves of the knowledge which had been acquired, and, by a number of pharmaceutical preparations, have obtained from it a fresh source of power in the cure and alleviation of disease.

Previous to the researches of the Arabians, little appears to have been known of mercury. Dioscorides and Pliny both speak of it as well known in their time. Dioscorides, indeed, furnishes us with the method pursued of obtaining it by sublimation from cinnabar. It is the first mention we have of a process which ultimately led to that of distillation. Theophrastus speaks, too, of cinnabar; but their knowledge of it was very imperfect, and, though used externally in medicine, it was deemed a virulent poison, an opinion that Pliny entertained and promulgated.

The Arabians, who seem to have applied chemical preparations to the cure of disease before any other persons, were very inquisitive as to the properties of mercury. The learned Geber, the patriarch of chemistry, who lived during the eighth century, believed all metals compounds of mercury and silver, but this was not his own opinion, it is that which he says he derives from the ancients. Others of the Arabians believed that mercury formed the philosopher's stone, which secured man from disease, and gave him immortality. The Liber Trium

Verborum, which, with the book of investigation, and the will of Geber, and a work "De Congelatione et Conglutinatione Mineralium" of Avicenna, has been translated into Latin from the manuscript in the Vatican Library; from this and "De Perfectione Magisterii," we learn that they were, at that time, acquainted with many of the properties of mercury; that they knew how to form corrosive sublimate, and that some imperfect knowledge of its powers had been obtained. Geber describes the affinities of this metal for the other metals, and gives a formula for making the red oxide.

To Basil Valentine has been attributed the first employment of mercury, as well as antimony; but it was that great and extraordinary man, Paracelsus, who first taught physicians the use of chemical medicines and of chemical inquiries. He burst the fetters which enslaved medical men; he overthrew the throne on which an idol had been placed, and, in its stead, elevated the divinity which we now adore, as the emblem of truth. This great reformer, whom it has been the fashion for the lovers of antiquity to revile and to laugh at, and whose works they have not deigned to examine, first boldly recommended mercury, and, by the loudest encomiums, drew general attention to its powers; by the successful cures he effected by it, he overcame much of the prejudice against it, though singularly enough, even to this hour, there are many who entertain the most decided hostility against it, and who, almost without being aware of it, are using at this day the same arguments against one of the most valuable, most certain, and most efficacious remedies we possess, if properly administered, and raising the same objections, which the lovers of the Galenical prescriptions of the older schools formerly employed. Mercury, capable of being rendered an invaluable treasure in the science of medicine, has been, and again will be, the curse of the sick, if all that belongs to it is not thoroughly known. If the ardor that was evinced for it, as the element of the philosopher's stone, had been directed to as a cure for disease, man would not have undergone much of the misery he has had, from ignorance and credulity, to encounter.

Mercury, in its pure state, is always fluid, and from this circumstance, together with its likeness to silver, it has obtained different names expressive of these characteristics; hence the English word quicksilver, or living silver, and the Greek name hydrargyrum, or watery silver. It is the most brilliant and shining of the metals. Its divisibility has always been the subject of observation. Liebnicht, by striking a globe of mercury six lines in diameter, distributed it into such extremely minute globules, that by a microscope he could see one hundred million of them. It is of great weight, 200 being its proportional, and is at the same time very volatile. It was supposed capable of imparting its own characteristic properties to other metals. For a long time it was imagined that it could not be rendered solid by any degree of cold, and as late as the days of Boerhaave this was asserted in his "Elements of Chemistry;" it, however, was proved to be erroneous by Professor Braun, who, on the 14th of December, 1759, availing himself of an intense degree of natural cold, augmented it still further by fuming nitrous acid and pound-

ed ice. An account of a treatise in Latin, presented to the Royal Society by William Watson, M.D., is to be found in the "Philosophical Transactions," in the fifty-second volume, describing this process. It was at an extraordinary degree of cold below zero that the academicians broke the glass bulb of the thermometer, finding that the mercury was stationary; it was congealed, and formed a solid mass, possessing a certain degree of ductility. It was susceptible of being extended by the hammer; at each blow, however, the metal melted, and ran into globules, in consequence of the internal caloric becoming developed by the pressure. This result surprised the philosophers, who had generally imagined that the point of mercurial congelation must have been at least 500 degrees below the zero of Fahrenheit, and scarcely any one had ventured to imagine that it was one short of 100.

Mr. Thomas Hutchins performed a number of experiments, under the direction of the Royal Society, at Hudson's Bay, in the year 1783, by which it was ascertained that quicksilver freezes in a degree of cold not exceeding that which occurs in the Northern parts of Europe, and the point now generally stated is about 40 degrees below zero. On the 7th of February, 1799, my distinguished friend, Mr. Pepys, who retains the same love of science that marked his early career, assisted by some of his chemical friends, congealed fifty-six pounds of mercury into a solid mass by a mixture of muriate of lime and of uncompressed snow in equal weights. Owing to an accident this mass was broken; the larger portions remained some minutes unchanged before they melted, whilst some of the smaller fragments were capable of being twisted into various forms; but Mr. Pepys found much difficulty in handling them; and on laying hold of a large mass of the solid mercury he experienced a sensation very similar to that which a solid instrument inflicts, and compares it to that which is produced by a red-hot iron. He was not a little alarmed when, on examining the part of the hand which had been in contact with the metal, he found it quite white and apparently dead, and that it had lost all sensation. From this state, however, it very soon recovered. When a similar experiment took place at the Polytechnic School, in Paris, the mercury was enclosed in bulbs of thin glass, and when the congelation occurred, the individual who held the tube in his hand felt a concussion, a phenomenon which also happens when phosphorus becomes solid; a crystallization into very small octahedrons was the result, and this Pelletier placed in the hollow of his hand; he immediately experienced pain similar to that which a burn produces, and the skin exhibited a white spot, which afterwards became red, and so continued for several days. It is the singular property which mercury possesses of suddenly contracting, which is the cause of the shock that is felt. As this liquid metal does not attach itself to bodies that are wetted by water, by oil, or other liquids, the dryness of mercury has obtained much attention, but it is accounted for by the little attraction these bodies have for that substance.

Some of the characteristics of mercury are peculiarly striking. Thus, it always assumes the form of globules, perfectly round; hence its round surface was long a source of error in barometrical surveys, and which

was obviated by Cassebois. Its power as a conductor of caloric is very remarkable. If a red-hot iron be plunged into quicksilver, it instantaneously loses its redness, even much more quickly than when immersed in water. Its dilatation by caloric is so uniform, that we are enabled to ascertain, with the utmost precision, the force of heat, and hence are able to construct such perfect thermometers. Its volatility and extreme expansion by heat are such, that it bursts every obstacle. Two examples of this are related, one by Hellot, where a quantity was enclosed in a well-soldered globe of iron, which was thrown into a fire; but scarcely had it become red-hot when the mercury burst its receptacle with tremendous noise, and quickly flew out of sight. The other occurred in the house of the celebrated Geoffroy. An alchemist, who proposed to fix mercury, inclosed a quantity in a ball of iron, which he inclosed in several other similar spheres, each larger than the other; he secured them all by very strong hoops of iron, and then threw the whole body into a furnace; but after a short time the mercury burst through all these inclosures, and hurled the fragments of iron with such force that they penetrated the walls and partitions like bomb-shells. Another marked property of the metal is its phosphorescence. As the celebrated Picard was carrying home from the observatory, at Paris, during a very dark night, a barometer, he was struck with the luminous sparks that were emitted from it, owing to the shaking of the tube during the action of walking; but strange to relate, several barometers were tried, but none of them seemed to possess the same singular power, but one that belonged to the immortal Cassini. This was in 1675; the journals of the day noticed it; but it was forgotten until Bernouilli wrote a treatise, "*De Mercurio Lucenti in Vacuo*," and pointed out that luminous barometers might be formed. Leibnitz, Gravesande, and others, investigated the subject, and many ingenious applications were proposed, but the property was discovered not always to be constant; that it varied in hot and dry weather; and it is now believed to be an electrical phenomenon, produced by the friction of the metal against glass.

There are four well-ascertained ores of mercury; the first, native mercury; alloyed, or amalgamated mercury; the sulphuret of mercury, or cinnabar; and the red muriate of mercury; there are other ores which have not been generally acknowledged. You will find, in the British Museum, specimens of native mercury, as globules disseminated in cinnabar, and hydrarguret of silver, or native amalgam, in the second case; in the ninth, a suite of specimens of sulphuret of mercury, both the dark red and the bright red cinnabar. You will also observe there, hepatic mercurial ore, a mixture of cinnabar with bituminous and earthy particles; and, in the sixtieth case, the last to which I have alluded, the chloride, or muriate of mercury. These came from Almaden, in Spain, which is the oldest mine in Europe, and was worked by the Romans from Friuli, from the provinces of America, and from different parts of the globe. Mercury is very often brought into the market in an adulterated state. Lead and bismuth, though solid by themselves, have the power of wearing considerable fluidity when mixed; but the tarnished appearance, the dross and impurities on the surface, the black color with

which it soils the bodies with which it comes into contact, the imperfect roundness of the globules, the difficulty which they have of uniting when placed in contact with each other, are the criteria which indicate the impurity of the metal; besides which, there are various processes by which the chemist arrives at certain knowledge of the facts which it is the province of that science to detail to you. The means by which mercury is extracted from the bodies with which it is combined, are all founded upon distillation, but the processes are carried on in different ways, according to particular views. Antoine Jussieu has detailed that which is pursued at Almaden, in Spain, in the *Memoirs of the Academy of Science* for the year 1719. Sage has given a description of that which is employed in Bohemia; they are founded upon the same general principles, though they materially differ in the nature of the apparatus, the time required for the completion of the preparation, and the number of persons demanded to carry it into effect.

Antoine Jussieu, when he described the mines of Almaden, and the operations that were there performed in the year 1719, observed, that they did not emit any exhalation deleterious to vegetable life; that the neighborhood and the soil above the mines were fertile, that only the convicts employed in the interior suffered from any violent disease, and this he attributes to the mercury volatilized by the fires which are constantly burning. Exposure to the vapor issuing from this metal will speedily destroy life, or produce disease. Of this a most remarkable instance is detailed in an extract from a letter from Lisbon, dated the 12th of May, 1810, and is to be found in the sixth volume of the "*Edinburgh Medical and Surgical Journal*," and which, the year following, was the subject of some remarks in the "*London Medical and Physical Journal*." In April, of the year 1810, the *Triumph*, man-of-war, and the *Phipps*, schooner, saved from the wreck of a Spanish ship, off Cadiz, a large quantity of quicksilver. The *Triumph* took on board thirty tons, contained in leathern bags of fifty pounds each; these bags were picked up on the shore, and were saturated with sea-water; they were collected and stowed below in the bread-room after-hold, and store-rooms forward. In about a fortnight many of them decayed and burst, and the mercury escaped into the recesses of the ship; at this period bilge-water had collected, the stench of which was considerable, and the carpenter's mate, in the act of sounding the well, was nearly suffocated; the common effect of the escape of bilge-water is to change, from the escape of the gas, every metallic substance in the ship to a black color, but on this occasion every metal was coated with quicksilver; an alarming illness broke out amongst the crew, all of whom were more or less salivated. The surgeons, pursers, and three petty officers, who were nearest the place where it was stowed, felt the effects the most, their heads and tongues having swollen to an alarming degree. The *Triumph* was sent to Gibraltar to be cleared, and the people were placed in the hospital. The quantity on board the *Phipps* was not so great, but she was sent to Lisbon to be cleared by boring a hole in her bottom to allow the quicksilver to run out. Every rat, mouse, and cock-roach on board was destroyed; and the symptoms of a general salivation appeared in a

strong degree. Some attributed the effluvia to the bags having been acted upon by the sea-water, and Dr. George Pearson attempted to explain the phenomena, but not satisfactorily. Of the truth of the statement Dr. Baird and three surgeons bear sufficient testimony.

Of its effects upon miners we may likewise judge by a narrative that is given by Dr. John Wilkins, in the "*Philosophical Transactions*," in the year 1666, in which he describes the quicksilver mines at Friuli, in the Venetian territory; he says that, although none of the miners stay under ground above six hours, all of them die hectic or become paralytic. He saw there a man, who had not been in the mines for above a half a year before, so full of mercury, that on putting a piece of brass in his mouth, or rubbing it between his fingers, it immediately became white like silver, and precisely the same as if mercury had been rubbed upon it; and so paralytic was the unfortunate man that he could not, with both his hands, carry a glass half full of wine to his mouth without spilling it, though the doctor quaintly adds, he loved the wine too well to throw it away. It appears that both the shaking palsy and salivation are the consequences of the exposure to the vapor, or to the metal in its usual state, but that those who are liable to the one are not so to the other, but the same exposure may cause salivation in one individual and palsy in another. Of this Dr. Christison furnishes us with an illustration which he learnt from his friend, Mr. Hardinger, the mineralogist. A barometer-maker, and one of his men, were exposed one night, during sleep, to the vapors of mercury, from a pot on a stove in which a fire had been accidentally kindled; they were both most severely affected, the latter with salivation, which caused the loss of all his teeth, the former with shaking palsy, which lasted all his life. Dr. Falconer, of Bath, gives us an account of the effects produced by the application of this metal, in the form of a girdle worn round the waist, especially by females of the lower order for the cure of the itch, as being a cleaner proceeding, and more free from scætor than ointments composed of sulphur. Many cases were admitted into the Bath Hospital, and the symptoms which were exhibited were a degree of general weakness approaching to palsy, great pain and tremor in the limbs, and often violent headache. It is worth remarking here that an instance lately occurred in the Bath Hospital, where all the symptoms that distinguish the poison of lead were observed, even the loss of tone in the muscles of the wrist, in consequence of the use of mercurial ointment for the cure of the itch.

Merat, in the appendix to his "*Treatise on Metallic Colic*," has described very admirably the "*tremblement metallique*;" and Dr. Bateman, in his history of the disease to which mirror-silverers are subject, has also painted it remarkably well. The attack is sometimes sudden, at others gradual; with unsteadiness and the shaking of the arms and limbs, which prevent walking, speaking, or masticating; for the tremors become frequent, nay, almost constant; every action is performed by starts; if the occupation which produced it be continued, sleeplessness, loss of memory, and death, terminate the scene; a peculiar brownish hue of the whole body, and dry skin, generally accompany the disease. In its first attack it may be taken for St. Vitus's dance, in its later stages



for delirium tremens. Wherever mercury is employed in the arts or manufactures, great attention is necessary to cleanliness, by which means all bad consequences may be avoided.

[To be continued.]

## CURVATURE OF THE SPINE.

BY JOHN E. BROWN, M.D., OF BOSTON.

[Communicated for the Boston Medical and Surgical Journal.]

*To John C. Warren, M.D., Professor of Anatomy and Surgery in  
Harvard University.*

HAVING had some conversation with you upon the treatment of spinal affections, and knowing the lively interest you always take in the improvement of every branch of your profession, as well as from the high standing you occupy as a surgeon and physician, I am induced to address to you the following remarks. Having lost my eldest son (as you well know) by inflammation of the great spinal cord, and having now my second son confined to his bed by a lateral curvature of the spine, my attention has been forcibly drawn to the study and treatment of spinal diseases generally, and to the correction of other deformities of the human body, such as distortions of the limbs, club-feet, &c. &c., and I hope my exertions may not prove entirely useless to those who may be suffering under these complaints.

Spinal affections are, for some reason or other, daily increasing in this community. My impression is that the rigid discipline and the construction of the seats in our public schools are fruitful sources of curvature of the spine. I have had two young misses, in the same family, with this affection, brought on, as I am confident, by their sitting posture at school. I can point out to you ten or twelve masters and misses (mostly misses) in one school in this city, who have curvatures of the spine, produced, as I fully believe, by the bad construction of the seats, and the posture in which the regulations of the school compel them to sit four or five hours in succession. Imagine, for instance, a delicate young miss seated on a piece of plank, of a size a little larger than your two hands, and required to sit there four or five hours without any support to the back. The muscles of the back soon become tired, and she, to relieve them, inclines to one side or the other, and from some accidental circumstance she generally gets into the habit of inclining to one particular side, i. e. to the right or left. The spine, of course, acquires a curve in the opposite direction. One shoulder blade projects out, and one hip is more elevated than the other. Mothers, who are sharp-sighted, with regard to any defect in the symmetry of their children, and particularly of their daughters, are generally the first to observe their deformities. They are commonly not aware that these irregularities are caused by a distortion of the spine. If the spine is accurately examined at this time, it will generally be found nearly to represent the Italic letter S. If judicious applications are made at this early period of the disease, the body may almost universally be restored to its pristine shape.

and symmetry, and the spine brought up to an erect position; but if suffered to go on unattended to, the deformity becomes incurable, and produces much mortification and suffering to the unfortunate individual who may be the subject of it.

Another cause of curved spines, not unfrequent in our public schools, is the desks on which children write. The desks are frequently not adapted to the height of the pupil. Imagine, for instance, a young master or miss compelled to write two hours, per day, on a desk from four to six inches too high. The right shoulder must, necessarily, be elevated, the right shoulder blade thrown out, and the spine of course curved. What posture-master, if he wished to produce a permanent distortion of the spine, could adopt a more ready method of accomplishing his object, than this?

It now, Sir, becomes proper to make some remarks on the mode of treating curvatures of the spine, after they have taken place. It was formerly the custom, particularly among machine makers, to load the unfortunate sufferer with irons, or brass encasements; and some modern practitioners (very few, I believe), in this branch of surgery, have resumed this obsolete practice. They are called dressings. The first dressing consists of frames of iron, applied to the back and front of the body, and extending from the hips up above the shoulders. These frames are connected together by screws, and are so constructed as to press forcibly upon the most prominent parts of the body; for instance, as it may be, the right shoulder and the left breast—the pressure being diagonal. These frames, as I have before said, are united by screws, or some other apparatus which renders them capable of being tightened to any degree, consistent with the endurance of the patient. These machines are suffered to be worn for some months, and daily drawn tighter, for the purpose, as it is said, of forcing the bones into place. After this process has been gone through, the body is incarcerated in a solid brass mould, adapted in some measure to the shape and size of the body which it is intended to envelope; it extends from the hips to the arm pits, and is so constructed as to take a bearing upon the hips. This apparatus is made of solid brass, with folding doors in front, so as to admit the body, after which the doors are closed, and secured by strong fastenings, so constructed that they may be drawn tighter and tighter every day. The unfortunate sufferer is not permitted to take off this coat of mail, even at night, but is compelled to sleep in it, and this for months, and perhaps years. What is the result of this mode of treatment? What must it necessarily be? Perspiration is obstructed, circulation is impeded, the internal organs are compressed, the lungs have not room to play, the heart is embarrassed in its motions, the lower limbs swell, *consumption* and a chain of untoward symptoms follow in the train.

But suppose the internal organs are capable of sustaining themselves under this pressure, and that they are able to carry on their healthy action, and perform their natural functions, under all these impediments; what will the effects of this mode of treatment be upon the muscles of the back—those muscles intended by nature for the support of the



fabric, to sustain the spine in its erect position, and to support the weight of the head and shoulders? These having been kept in a state of inaction, have lost the power of action. When the artificial supports are taken away, they are incapable of sustaining the weight of the body, and the spine sometimes curves to an alarming degree. I have some drawings, taken from nature (which you have undoubtedly seen), of curvatures of the spine which are appalling to the sight. I cannot but think that this method of treating distortions of the spine is injudicious, unphilosophical, and calculated to do much harm; and I am sustained in this opinion by very good authority.

The following quotations have a strong bearing upon this point. Dr. Portal, a very eminent French physician, in speaking of the strong, stiff stays in fashion at the time he wrote, says, "Those who use them are sure to become distorted, for the muscles of the spine have been so weakened by the want of use, that when the artificial props are removed, they are no longer capable of supporting the body." Van Swieten, the Dutch physician, whose name is illustrious in the annals of medicine, gives even a more distressing picture of the condition into which women may fall, who have been accustomed, from their infancy, to wear stiff stays. But the name *lorica* (coat of mail) by which he designates them, and his observations, would lead us to believe that the stays worn in his day were peculiarly stiff and strong. "Those who have been long accustomed to wear *lorica* can never lay them aside, for fear of the chest falling forwards in consequence of the weakened state of those muscles, which, when properly exercised, are not only capable of supporting the weight of the upper part of the body, but even of heavy burdens. Indeed I could not view but with pity, those who were so wretchedly reduced as not to dare to take off the stays even to go to sleep, much less to raise themselves, or to keep the body erect if brought into that position."

Mr. J. Shaw, who has published an able treatise on curvature of the spine, makes the following remarks. "We can conceive the bad effects that must have ensued from wearing such machines; indeed, the consequences are well described by an eminent author who wrote about sixty years ago. Some nations have fancied that nature did not give a good shape to the head, and thought it would be better to mould it into the form of a sugar loaf. The Chinese think a woman's foot much handsomer, if squeezed into one third part of its natural size. Some African nations have a like quarrel with the shape of the nose, which they think ought to be laid as flat as possible with the face. We laugh at the folly and are shocked at the cruelty of these barbarians, but think it a very clear case that the natural shape of a woman's body is not so elegant as we can make it by the confinement of stays. The common effect of this practice is obstruction in the lungs, from their not having sufficient room to play, which, besides tainting the breath, cuts off numbers of young women in the very bloom of life. But nature has shown her resentment of this practice, by rendering above half the women of fashion deformed, in some degree or other. Deformity is peculiar to the civilized part of mankind, and is almost always the work of his own

hands. The superior strength, just proportion, and agility of savages, are entirely the effects of their education, of their living mostly in the open air, and their limbs never having suffered any confinement."

The above quotations tend to show the bad effects of artificial supports applied to the human body in such a manner as to impede the free exercise of the muscles, and prove very decidedly the absurdity of the method I have above described of incarcerating the body in iron or brass for the purpose of correcting distortions of the spine—a method which, I am sorry to say, in this enlightened age is still practised by some, but I am happy to think very few.

My method, Sir, of treating curvatures of the spine, stoops, &c., may be comprised in a few words. My object is to give physical strength to the muscles generally, and particularly to those immediately connected with the defect I wish to remedy. Occasionally some artificial support is necessary, but I make use of none that at all interferes with the free use of the muscles. The inclined plane that I employ is so constructed that it extends the spine, and at the same time keeps the muscles of the back and loins in constant exercise. Shampooing, thumbing and friction are powerful auxiliaries in the treatment of spinal affections.

It is unnecessary to say to you, Sir, that in devoting a portion of my time to attending to spinal affections, I do not intend to neglect or be remiss in attending to the other duties of my profession.

I have the honor to be, yours, very respectfully, J. B. BROWN.

#### CASE OF HYPOPIUM FROM INJURY OF THE CORNEA.

BY EDWARD J. DAVENPORT, M.D., BOSTON.

[Communicated for the Boston Medical and Surgical Journal.]

JOHN PEARCE, stone mason, æt. 30, applied at the Boston Eye Infirmary on Monday, 19th February, with an inflammation of the left eye, arising from a fragment of steel imbedded in the cornea since the Thursday previous, the removal of which had been attempted in vain by the means usually resorted to in such cases. At the time of this application there existed redness and tumefaction of the ocular conjunctiva, with considerable pain and lachrymation, aggravated upon exposure of the eye to light. The day following that upon which the accident occurred, he had severe pain, but now suffers less pain, but complains occasionally of distress from a sensation as of a foreign body in the eye, especially upon moving it about. The particle of steel was lodged in the cornea nearly opposite to the pupil, and appeared to be covered by a thin layer of lymph, which undoubtedly served, in some measure, to protect the part from the friction of the eyelids, and by this means to diminish the patient's sufferings. It seemed to have transfixed or passed through the substance of the cornea; and owing to a superficial ulceration that had occurred around—a spontaneous effort of nature to effect its removal—it was situated in a pit or depression in the cornea. A nebulous opacity extended around this spot to some distance, but was most dense and white where the steel was in contact with the cornea. The iris (naturally of a blueish-grey

color) had assumed a slight greenish tinge, especially about the annulus minor; and the pupil showed a disposition to contract.

These circumstances, together with the existing inflammation and the minute size of the substance to be operated on, rendered its dislodgment extremely difficult; and after several ineffectual attempts with a fine cataract needle, the pointed extremity of a curette, &c., I directed the patient to make use of the proper means to subdue the inflammation, and afterwards to apply to the ulcer and foreign body, with a fine camel's hair pencil, a weak solution of muriatic acid in distilled water.\* In four days he returned with a severe inflammation of the left eye, having neglected to make use of the depletory remedies recommended at the previous visit. The eye now presented the following appearances of grave disease, viz., vessels of the ocular conjunctiva and of the sclerotic tunic much injected; cornea, hazy and dull throughout nearly its whole extent; at the lower part of the anterior chamber, a considerable deposit of purulent matter, with a line of pus or lymph of a yellow color adhering to the posterior surface of the cornea, and extending from the point at which the steel had threatened to pass through the cornea, downwards to the bottom of the chamber; the iris had become of a distinct green color, and the pupil was contracted, irregular, and without motion—all of which clearly indicated that an inflammatory action had been set up in that membrane; the patient retained merely the perception of light, without the power of distinguishing objects; the pain was characteristic of internal inflammation of the eye, that is to say, it affected the brow and temple, and was aggravated at night or upon assuming the recumbent posture. There was thirst, with loss of appetite; pulse not affected. Upon looking for the speck of steel, the exciting cause of all this mischief, it was nowhere to be seen. Whether it had passed through the cornea into the anterior chamber—not an improbable supposition—or whether, loosened and detached from its situation by the ulcerative process, it had escaped externally, it was impossible to decide, nor was the question one of much practical importance. The critical condition of the eye, rendered necessary an immediate recourse to active measures. Accordingly a vein was opened in the arm, from which he was freely bled, and with manifest relief of the pain and uneasiness of the eye. Four hours afterwards, the pain having returned in some degree, cups were applied to the back of the neck, and blood was taken until absolute faintness occurred. The bloodletting was followed by an active dose of calomel and jalap and infusion of senna.

*Friday, 23d.* The pain has diminished, and the vascularity of the eye is somewhat less; in other respects the same. He was cupped from the temple to six or eight ounces, and was directed to take, night and morning, one of the following pills, viz.: *R. Hydrargyri submuratis, gr. xij.; opii pulveris, camphoræ, aa gr. vj. Misce: in pil. No. vj. dividend.* Fomentations of poppy leaves were frequently applied to the eye, and strict antiphlogistic diet and regimen, with rest in a dark room, were enjoined.

*Saturday.* The opacity of the cornea had disappeared, except in

\* 10 drops of the acid to one ounce of water.

the vicinity of the ulcer. Upon looking obliquely into the anterior chamber, an effusion of lymph was visible in the pupil, or rather, between the pupil and cornea. Six leeches were applied to the temple, and he was directed calomel and opium every six hours, for the purpose of arresting the inflammation of the iris and of promoting the absorption of the effused matter. To prevent adhesions of the iris from taking place, the extract of stramonium was freely applied round the brows and on the upper eyelid.

*Sunday.* The patient reported himself free from pain. The vascularity of the eye had diminished much, and the purulent and lymphatic deposits were materially lessened. Continue treatment.

*Monday.* The pupil was well dilated by the stramonium, and exhibited great irregularity of the pupillary margin, with some adhesions to the capsule of the lens. The gums had become tender, and vision was rapidly improving. May continue the calomel and opium at longer intervals, with laxative medicine, if required.

*Tuesday.* Not a trace of the effusion in the pupil or anterior chamber can be discovered, and the patient has regained a clearness of vision, but little inferior to that of the sound eye. The ulcer of the cornea showing no disposition to cicatrize, it was touched with a saturated solution of nitrate of silver, and the patient was advised to continue, for a short time longer, moderate doses of calomel and the application of the extract of stramonium, and also to protect the eye by wearing over it a pasteboard shade. On Wednesday he returned home into the country, and soon after was able to resume his work.

*March 20th.* J. P., the subject of this communication, goes abroad with the eye uncovered, as before the accident occurred, a slight weakness, only, of the eye remaining when exposed to bright light. The iris has regained its natural mobility and color. The ulcer of the cornea now presents the appearance of a dimple or deep indentation with smooth round edges, and is nearly transparent. This offers some impediment to perfect vision in that eye, and causes some confusion when both eyes are applied at the same time upon minute objects. This condition of the cornea, however, does not seem to me to be remediable by any known treatment, but time and use or habit may make it less perceptible, and therefore less annoying to the patient.

*March 28, 1838. No. 4 Winter Street.*

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## BOSTON MEDICAL AND SURGICAL JOURNAL.

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BOSTON, APRIL 4, 1838.

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### EPILEPSY CURED BY TREPANNING.

On a morning visit, last week, to the Massachusetts General Hospital, we saw the Rev. E. W. Sewell, of Scituate, a patient of the institution, whose case is so remarkable that we intend hereafter to publish a com-

plete history of it from the beginning, with a view of placing on permanent medical record a most interesting triumph of surgical skill.

Without at all anticipating the details of the proposed report, suffice it to say, that owing to a diseased condition of the bones of the skull on the left and upper surface of the head, Mr. Sewell had not only been in constant pain, more or less, for twelve years, but he was subject to sudden and violent fits, as they are commonly denominated, which sometimes continued, without interruption, nearly two hours. Twice or three times, of late, he was thus instantly bereft of consciousness, and thrown into violent spasms, while officiating in the church of which he is the pastor. Under these circumstances, he came to Boston for advice. Dr. George Hayward, after examining into all the circumstances, was convinced that the only mode of relieving an obvious pressure on the brain, was to take out a portion of bone at the point which seemed to be the focus of disease. He accordingly trepanned the gentleman, taking out a button of bone about three quarters of an inch in diameter. Although the pain of the operation was intense, the patient did not utter a complaint, and on the instant of raising the bone from the brain, he said he had not been so perfectly free from pain in twelve years before. There has been no return of epilepsy; the wound is nearly healed; he feels well, looks well, and, to our apprehension, will soon return to his church and society in perfect health. The pulsations of the brain are now seen on his head, precisely as we notice them over the fontanelles of young children.

Owing to compression of the brain, its functions were interrupted, and the whole machinery of the body thrown at times into irregular spasmodic action, which was destructive to health, and was continually growing worse. To the ingenuity and science of Dr. Hayward, therefore, he owes his life; and the community will rejoice, with the sufferer and his friends, in the goodness of that Providence who has thus restored him to health and happiness.

#### MEDICINE IN FRANCE, ENGLAND, AND GERMANY.

MUCH as we have been instructed by the article in the American Medical Library, entitled, "*Observations on the Comparative State of Medicine in France, England, and Germany*," had it not been that the name of our old acquaintance, Edward G. Davis, M.D., was prefixed, as translator, perhaps the pages would not have been quite so thoroughly examined. The writer of the treatise is one Dr. Adolph Muehry, a surgeon of Hanover, who resided several months in Paris and London, subsequently journeyed through England to Dublin, and finally went to the North of Germany in 1835. He is no retailer of small ware—no chronicler of uninteresting daily events, but a sort of general surveyor of medical science in three great kingdoms. On this account, the book—for such it is, in fact, having been published by itself, since its appearance in the Library, making 126 pages, 8vo. with an index—becomes a valuable acquisition to the medical reader, and in a private library would frequently be consulted. Dr. Davis, formerly of Boston, has an admirable tact in expressing the ideas of foreigners, in pure English; and all his translations—for he is an uncommonly industrious, but unobtrusive laborer—have been characterized by a happy facility of expression. We are

really glad that he is appreciated by the literati of Philadelphia ; he is an indefatigable scholar and an honest man.

*Medical Monopolies Abroad.*—Nothing strikes the American reader of some of the London Journals with more surprise, that the eternal series of complaints which are made against medical abuses in England, Ireland and Scotland. Although the hue and cry was raised more than twenty years ago, against the monopolists, and parliamentary committees have been in session as long as the siege of Troy, things are still terribly at odds and ends, judging from the never-ending complaints of correspondents and the scarifying, blister-searching criticisms of editors into the doings of schools, colleges, and hospitals. Just so surely as a man rises to distinction, whether by merit, wealth, or family, unless he is fortified with an indomitable spirit of independence, a pack of hungry curs will seize him by the heels and never relinquish their hold till their persecuted victim drops the bone or dies. Those, therefore, who are able to resist the unjustifiable influences often set in array against them, and who secure a reputation worth possessing, may be regarded as men of a very superior order. A similar feeling of hostility to successful individuals, as well as public charitable institutions, is beginning to be manifested in the United States. We are continually receiving communications which show very clearly what alterations are pressingly needed to move the wheels according to the pretended wise will of the public. Still, on analysing these benevolent projects, we invariably discover, in the sequel, that the writer is a discontented, disappointed person, or an intriguing fault-finder, whose only hope of success is to dispossess some worthier individual, and in the turmoil and confusion which would result from a successful attack on a good reputation, spring into the saddle and escape with the courser.

*Health Law.*—A Committee of the Council of the State Medical Society, were recently heard by a Committee of the Legislature. The Hon. Mr. Hooker, of Springfield, was chairman. One of the objects, it will be recollected, on the part of the Society, is a repeal of that odious feature of the law, as it now stands, which imposes a fine upon physicians for not reporting a case of some kinds of disease, when, in fact, half the time, it is impossible to decide whether the malady is dangerous to the public health or not.

*List of Accidents admitted into the Pennsylvania Hospital, from March 7th, to March 21st, 1838.*—One incised wound of the lip, opening the coronary artery ; a single suture was applied, passing through the artery, and the wound healed in three days. One lacerated wound of the scalp. One wound of the eye, from a stone thrown by a blast of gunpowder ; the upper portion of the iris was torn from its adhesions ; severe inflammation followed ; V. S. twice, to fainting ; purging, a blister, and rigid diet—doing well. One contusion of the side, from a fall, discharged cured in seven days. One sprained ankle. One fractured clavicle, seven days after the injury, discharged in seven days, union perfectly formed. One bite of a dog in the hand : the part involved was cut out. One sprain of the wrist-joint. One lacerated wound of hand, with fracture of the fingers.—*Med. Examiner.*



**Medical Miscellany.**—The mortality of the city of Berlin, the capital of Prussia, last year, was 11,045, and the births 10,260. The number of illegitimate children born was 1,515, or 1 in 6.—A resurrectionist in Baltimore has been doing a large unprofitable business; he had collected several subjects, which the city authorities reburied.—Mons. Poyen is said to be in Hingham, lecturing on animal magnetism.—The cost of the intended State Lunatic Hospital of New York, is limited at \$60,000, which will not purchase the site and brick enough to enclose it.—It is related that a woman who died in Boston, a few days since, was in the daily habit of eating enormous quantities of cake chocolate—she is represented to have died of extreme obesity.—Dr. Elliotson, of the London University, says his course consists of about 150 lectures and 20 examinations. He cannot discover the necessity of a professorship of hygiene!—As usual, the English Poor Law Commissioners get most terribly treated in the *Lancet*. The whole difficulty seems to be this—the commissioners get more salary than their medical servants, who, therefore, make most dolorous lamentations.—Dr. Bradley, the missionary surgeon, at Bangkok, the capital of Siam, in speaking of pterygium at that place, says that four pterygia often appear at the same time in a single individual, one from each angle of the eyes, baffling all the skill of the native doctors.—So dreadfully has the smallpox prevailed among the Western Indians, that it is asserted that thirty thousand have been swept away by it since the early part of the last autumn.—Mr. Mellett, an Englishman, of Hayle, Cornwall, has made what he supposes an improvement in the key for tooth drawing, which has been familiarly known in New England, judging from his plate, more than forty years. Notwithstanding the multitudinous improvements in this instrument, they all require main strength to extract a tooth.—The Council of the British Medical Association, at one of their late meetings, discussed the propriety of establishing a *Medical and General Life and Fire Assurance Association*.—A committee of the Society was raised to communicate with a committee of the House of Lords on the subject of imprisonment for debt. Some of the doctors are opposed to the new scheme of non-imprisonment, fearing that they cannot get their fees if the prison does not lend its terrifying assistance.—We understand that a certain individual did not have a limb amputated, as stated in the *Journal* a few weeks ago. We were misinformed, and this correction is now made cheerfully.—From St. Louis, it is reported that the steamers *Gen. Collier* and *United States* had arrived from New Orleans with the smallpox raging on board among the emigrant German passengers. Several sick females had been landed on the passage up.—Dr. Erdmann relates a case in which the external lining membrane of a portion of the intestinal canal took upon it, and performed the functions of, the internal mucous membrane for several years.—According to Shall's experiments, the saliva contains a fixed alkali, and acts, almost universally, as an alkali upon test paper.—Dr. Schneider, while injecting the uterus of a woman, who died during the fifth month of pregnancy, found that the injection passed on into the veins of the placenta; he therefore ranges himself on the side of those who advocate the existence of a direct communication between the vessels of the uterus and the placenta.—Dr. Elliotson has reported a remarkable example of rumination in the human subject. In addition to this case, Prof. Valentin mentions a child, two years of age, who fell under his notice, and in whom this anomaly was extreme well marked, and had been also in its father.

**TO CORRESPONDENTS.**—The writer of the article on the *Iron Springs*, will oblige the editor by calling again, or sending his name.—Other communications are on hand.

**DIED.**—At his residence in Arlington, Vt., Dr. Abel Ayrsworth, aged 53.—At Morristown, N. J., Lewis Condict, M.D., 25.—At Trenton, Illinois, Dr. Henry Storrs, formerly of Newton, Mass., 31.—At Carmel, N. J., Dr. Elijah Adams, formerly of Litchfield, Ct., 65.

Whole number of deaths in Boston, for the week ending March 31, 37. Males, 19.—Females, 18.  
Consumption, 9—child-bed, 1—rheumatic fever, 1—dropsy on the brain, 2—lung fever, 2—worms, 1—apoplexy, 2—marasmus, 2—inflammation of the lungs, 3—disease of spine, 1—gangrene, 1—erysipelas, 1—fits, 1—throat distemper, 1—dropsy in the head, 2—scarlet fever, 1—stillborn, 2.

**DR. LEWIS** requests those who have books belonging to him, to return them immediately at his residence, No. 66 Boylston Street. 4t—A4

### CAPSULES OF COPAIBA.

M. A. MORWAS, of Paris, has lately invented, and now offers to the medical faculty, a method of administering the Balsam of Copaiba without taste or smell.

The pure balsam is enclosed in capsules of gelatin, which completely cover its taste and flavor, so that they may be swallowed with as much ease as any nice confection. They each contain eighteen grains of the balsam, so that the dose can be measured with great ease; they dissolve readily in the stomach, and are sure not to pass off by the intestinal canal, as is almost always the case with the solidified copaiba. These capsules are highly commended by the medical journals of Paris, and M. Mothes has the favorable testimonials of Drs. Segalis, Rostan, Ricort, Desruelles, Cullerier, Baron Alibert, MM. Lisfranc & Marjolin, who daily prescribe them, and who, in their lectures, have given the highest praises to his preparation. They are neatly put up in oval paper boxes, containing thirty-six, and are sold in Boston by the importer's agent, THEODORE METCALF, Apothecary, No. 33 Tremont Row.

4t—M 28

### FALLING OF THE WOMB CURED BY EXTERNAL APPLICATION.

**DR. A. G. HULL'S UTERO-ABDOMINAL SUPPORTER** is offered to those afflicted with *Prolapsus Uteri*, or *Falling of the Womb*, and other diseases depending upon a relaxation of the abdominal muscles, as an instrument in every way calculated for relief and permanent restoration to health. When this instrument is carefully and properly fitted to the form of the patient, it invariably affords the most immediate immunity from the distressing "dragging and bearing-down" sensations which accompany nearly all cases of visceral displacements of the abdomen, and its skillful application is always followed by an early confession of radical relief from the patient herself. The Supporter is of simple construction, and can be applied by the patient without further aid. Within the last three years nearly 1500 of the *Utero-Abdominal Supporters* have been applied with the most happy results.

The very great success which this instrument has met, warrants the assertion, that its examination by the physician will induce him to discard the disgusting pessary hitherto in use. It is gratifying to state that it has met the decided approbation of Sir Astley Cooper, of London, Edward Delafeld M.D., Professor of Midwifery, University of the State of New York, of Professors of Midwifery in the different Medical Schools of the United States, and every other Physician or Surgeon who has had a practical knowledge of its qualities, as well as every patient who has worn it.

The public and medical profession are cautioned against impositions in this instrument, as well as in Trusses vendes as mine, which are unsafe and vicious imitations. The genuine Trusses bear my signature in writing on the label, and the Supporter has its title embossed upon its envelope.

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Boston, August 9, 1837.

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